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**CALCULATION SYNTHESIZED EFFECT OF
INTEGRATED MARKETING COMMUNICATIONS FOR
INDUSTRIAL ENTERPRISE**

The article proposed the scheme of forming the synthesized effect of marketing communications integrated by types, approach for calculating the synthesized effect of marketing communications integrated by types, developed evaluation hierarchical model of integrated marketing communications at stages of its formation.

Keywords: integrated marketing communications, synthesized effect, scheme, model, industrial enterprises.

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**РОЗРАХУНОК СИНТЕЗОВАНОГО ЕФЕКТУ ІНТЕГРОВАНИХ
МАРКЕТИНГОВИХ КОМУНІКАЦІЙ ПРОМИСЛОВОГО
ПІДПРИЄМСТВА**

У статті запропоновано схему формування синтезованого ефекту від інтегрування маркетингових комунікацій за видами, підхід до розрахунку синтезованого ефекту інтегрованих за видами маркетингових комунікацій, розроблено ієрархічну модель інтегральної оцінки інтегрованих маркетингових комунікацій за етапами її формування.

Ключові слова: інтегровані маркетингові комунікації, синтезований ефект, схема, модель, промислові підприємства.

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**РАСЧЕТ СИНТЕЗИРОВАННОГО ЭФФЕКТА
ИНТЕГРИРОВАННЫХ МАРКЕТИНГОВЫХ КОММУНИКАЦИЙ
ПРОМЫШЛЕННОГО ПРЕДПРИЯТИЯ**

В статье предложена схема формирования синтезированного эффекта от интеграции маркетинговых коммуникаций по видам, подход для расчета синтезированного эффекта интегрированных по видам маркетинговых коммуникаций, разработана иерархическая модель интегральной оценки интегрированных маркетинговых коммуникаций по этапам ее формирования.

Ключевые слова: интегрированные маркетинговые коммуникации, синтезированный эффект, схема, модель, промышленные предприятия.

Problem setting. Experience of the world famous industrial enterprises suggests that integrated marketing communications (IMC) are the constant component of marketing mix. They not only serve as way of promotion, but also improve business efficiency and competitiveness of the enterprises. So the issue of

development and practical implementation of holistic evaluating system of IMC, is urgent.

The rapid development of environment requires a high level of enterprises adaptation and as a consequence a permanent searching of new ways to keep their competitive position and to promote products. This and other factors lead to revision of enterprises communication policy towards transition from the integration of traditional marketing communication (MC) tools to synthesizing a marketing communication tools that provides the appearance of new tools, ways and forms of enterprises product promotion.

Recent research and publications analysis. The problem of integration methods and evaluation the effectiveness of MC found a place in the research of Ukrainian and foreign scientists. Thus, in the field of domestic science the structure of MC and MC model were considered by A.D. Pilko and O.M. Lukan (2013), MC efficiency for industrial enterprises was investigated by M.A. Oklander and I.L. Lytovchenko and M.I. Botushan (2011). These issues are also explored in the works of foreign scientists, including I.M. Karasyk (2011) who analyzed the trends of MC integrating, D. Dayton (2005) who investigated the characteristics of MC integration. D. Taylor and S. Hatch (2008) explored the communication`s ideas in the context of integrated marketing communications (IMC). Ways and methods of evaluating the effectiveness of the IMC were investigated in the works of G.E. Belch and A.M. Belch (2004), A. Jenkinson (2006), D. Jerman and B. Zavrsnik (2012), H. Ivanov Katrandjiev (2000), R. Saeed (2013), A. Sinickas (2005), Tsuen-Ho Hsu and Yen-Ting Helena Chiu and Jia-Wei Tang (2010).

The research objective. The variety of communication tools requires systematization and scientifically based methodological approaches which are able to present growth of economic performance in practice. Integrating MC by types that is synthesizing of communication tools allows obtaining the increase of synergy. *The research objective is* to determine the method of calculation and to build a hierarchical model of the synthesized effect of MC, integrated by types (ATL-, BTL- and TTL-communications).

Key research findings. Classification IMC by types in ATL («above the line»), BTL («below the line») and TTL («through the line») includes:

- ATL-communications are widespread traditional promotion tools that carry out a unilateral impact on consumers and have long-term effects;

- BTL-communications include personalized nontraditional tools that require dialogue of sellers and consumers and can be designed both on the short and on the medium term;

- TTL-communications are personalized MC tools that carry out bilateral impact, and form by the features combination of different instruments of ATL- and BTL-communications. Include nonstandard promotion tools.

It should be noted that the integration of communication complex components to save the advertising budget or to get the additional impact on campaign can take many ways (Karasik, 2011):

- The impact on consumer segments;
- The distribution of communications at the time;
- Areas of integration, depending on the purpose;
- Areas distinguished by their functional addition.

Scientists emphasis on existence a number of MC tools, ways and forms. (D. Dayton, 2005) among the main IMC characteristics distinguishes:

- The plurality of communication tools;
- The plurality of audiences;
- The plurality of stages;
- Coordination mechanism.

Obviously, the plurality is one of the principal IMC features at this stage of their development. In addition, some scientists point to the need for a timely transition to the next stage of IMC because traditional integration gradually loses its effectiveness. D. Taylor and S. Hatch (2008) emphasize that there is an inconsistency in using strategic ideas and ideas of their implementation, which makes it necessary to find new methods of IMC.

One of coordinated promoting forms is MC integrated by types (ATL-, BTL- and TTL-communications). Integrating MC by types and synthesising of communication tools allows to obtain growth of synergy that is a synthesized effect.

Synthesized effect of MC integrated by types is the result of the phased evaluation:

- At the operational level – psychological, communication, economic efficiency of each separate promotion tool (efficiency is shown by function);
- At the tactical level – the synergistic effect of MC integrated by types (ATL, BTL- and TTL-communications);
- At the strategic level – growth of synergy provided by TTL-communications that synthesize characteristics of ATL- and BTL-communications, and promote occurrence of synthesized effect.

Consider the forming a synthesized effect that allows to follow the interaction of its components (Fig. 1). The area the functions of ATL-communications, BTL-communications and TTL-communication changes (axis Ox) is a time range of management levels, range of values corresponding functions (axis Oy) is the economic impact (income) from the implementation of marketing communications.

Considering that ATL-communications are the resultant on the long-term outlook and their economic evaluation appropriate to carry out on strategic management level and BTL-communications are the resultant on the short and medium term outlook and their economic evaluation carried out at the operational and tactical levels of management, so the effect of implementation the latest ones at the strategic level will decline sharply in contrast to ATL-communications.

It follows that the functions of ATL-communications and BTL-communications are mutually inverse, and TTL-communication formed at the crossing place of ATL- and BTL-communications features that provide the largest economic benefit.

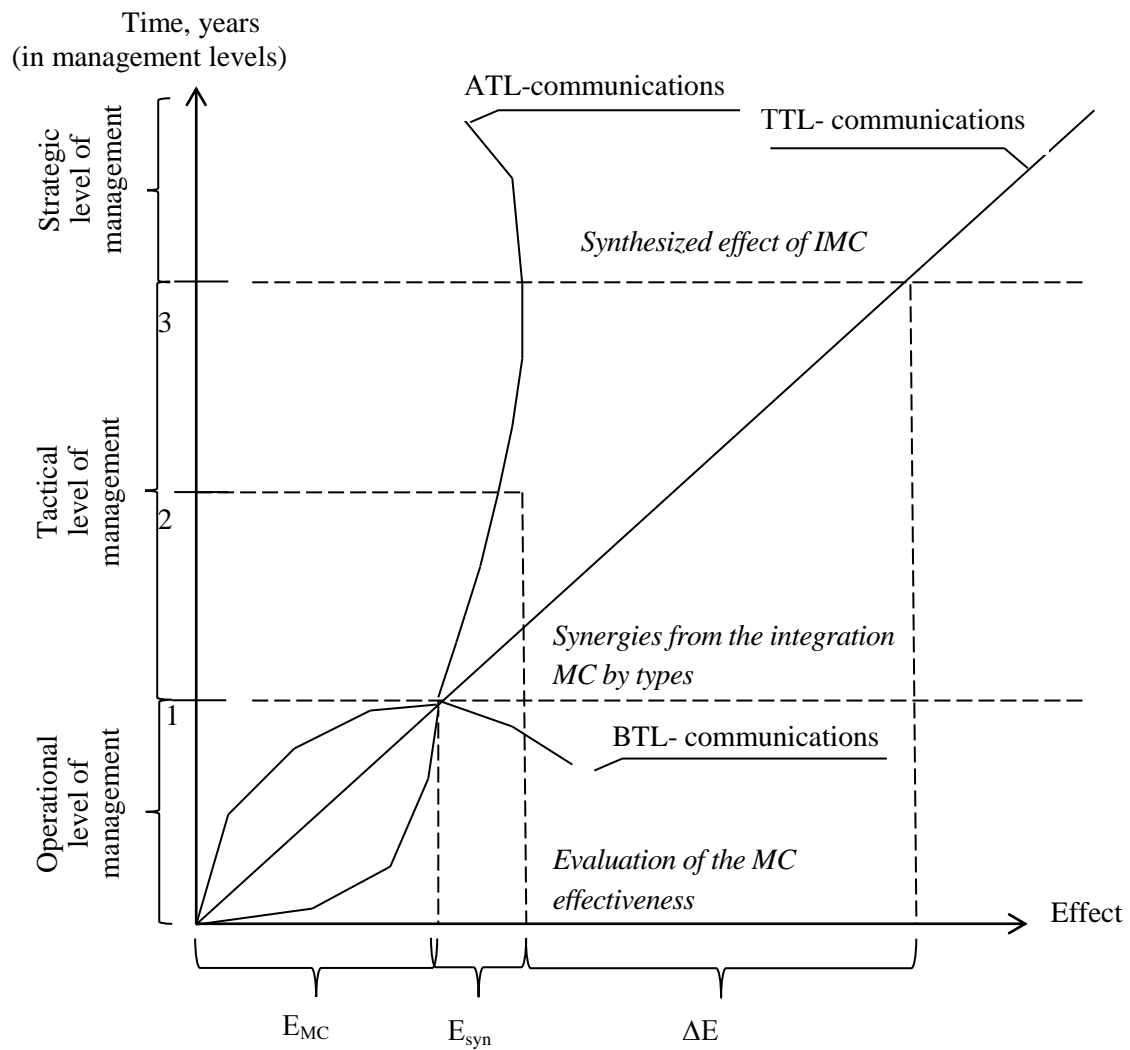


Figure 1. Scheme of forming the synthesized effect of MC integrated by types (author`s development)

TTL-communication, combining the features of ATL-communications and BTL-communications may use non-traditional forms and channels of communication (as BTL-communication) and continue to provide economic benefit in the long term (due to the peculiarities of ATL-communications). At that time, as an effect from the BTL-communications introduction decreases in the long term, and the effect from the ATL-communications introduction in the long term remains unchanged, TTL-communications provides growth the effect that is growth of synergy.

At the operational level, there is previous stage of an integral IMC evaluation through continuous diagnosing the effectiveness of each separate marketing communication tool:

$$\varepsilon_{MC} = f(\varepsilon_p \varepsilon_c \varepsilon_{ec}), \quad (1)$$

where ε_{MC} – effectiveness of each MC instrument;

ε_p – psychological effectiveness of MC instrument;

ε_c – communication effectiveness of MC instrument;

ε_{ec} – economic effectiveness of MC instrument.

Fig. 1 shows that the resulting IMC assessment can be represented as the sum of economic effects of promotional tools, synergistic effect from MC integrated by types and synergy growth which are dealt on three periods of promotion (operational, tactical and strategic level):

$$E_{synth} = \sum E_{ec_i} + \sum E_s + \sum \Delta E, \quad (2)$$

where E_{synth} – synthesized effect of IMC integrated by types;

E_{ec} – economic effects of each MC instrument;

E_s – synergistic effect of IMC integrated by types;

ΔE – growth of the synergistic effect.

The sum of MC tools economic effects represent the difference between income and costs for all types of MC tools on condition of traditional MC combination:

$$E_{ec} = \sum I_{tr} - C_{tr}, \quad (3)$$

where I_{tr} – income that enterprise receives using traditional MC;

C_{tr} – costs that enterprise spends using traditional MC.

Synergistic effect is greater than the total and can be defined as the product of all the effects and correction index that shows the degree of MC integration in particular program:

$$E_s = (\sum E_{BTL} + \sum E_{TTL} + \sum E_{ATL})_{(n+1)} \cdot K_{s_{(n+1)}}, \quad (4)$$

where E_{BTL} , E_{TTL} , E_{ATL} – effects of each separate type of MC.

The coefficient of synergy in this case can be calculated as follows:

$$K_s = \frac{I_s^{pr} - C_s^{pr}}{I^{tr} - C^{tr}}, \quad (5)$$

where I_s^{pr} and C_s^{pr} – projected income synergy and synergy costs (for this type of product).

In general, the formula synergetic effect takes the form:

$$E_s = (I^{tr} - C^{tr}) \cdot K_s \quad (6)$$

Increase the synergistic effect is the result of enterprise's communication activities on the strategic level with less cost to the IMC, multiplied by the corrective coefficient:

$$\Delta E = (I^{tr} - C^{tr})_{(n+2)} \cdot K_{synth(n+2)} \quad (7)$$

where I^{tr} – actual income (for this type of product);

C^{tr} – the actual cost of the IMC (for this type of product);

$K_{(n+2)}$ – adjustment coefficient that takes into account the deviation of actual indicators of enterprise's marketing communication activities results from the planned:

$$K_{synth} = \frac{I_{synth}^{pr} - C_{synth}^{pr}}{I^{tr} - C^{tr}}, \quad (8)$$

where $I_{synth}^{pr}, C_{synth}^{pr}$ – projected synthesized income and synthesized costs (for this type of product);

I^{tr}, C^{tr} – income and costs that enterprise can get by using the traditional approach to the integration of MC (for this type of product).

Thus, the formula of synthesized effect, from using MC integrated by types, becomes:

$$E_{synth} = (I^{tr} - C^{tr})_n + [(I^{tr} - C^{tr}) \cdot K_s]_{(n+1)} + [(I^{tr} - C^{tr}) \cdot K_{synth}]_{(n+2)} \quad (9)$$

For the complex of integrated marketing communications (CIMC), which has only one cycle and a set of three MC instruments in its structure, the calculation system of the synthesized effect will have the form, presented in table. 1.

Table 1. Calculation of synthesized effect for 1-cyclic CIMC (author`s development)

MC Toolkit	Period					
	1st period		2nd period		3rd period	
Tool of ATL-communications	$\varepsilon_{\Pi}, \varepsilon_K, \varepsilon_{eK}$	E_{ec}	E_{ATL}	E_s	ΔE_{ATL}	E_{synth}
Tool of TTL- communications	$\varepsilon_{\Pi}, \varepsilon_K, \varepsilon_{eK}$		E_{TTL}		ΔE_{TTL}	
Tool of BTL- communications	$\varepsilon_{\Pi}, \varepsilon_K, \varepsilon_{eK}$		E_{BTL}		ΔE_{BTL}	

Integral MC evaluation appropriate conduct at the strategic management level at the end of the time range in the three periods since the beginning of the communication campaign for separate type of product (Fig. 2).

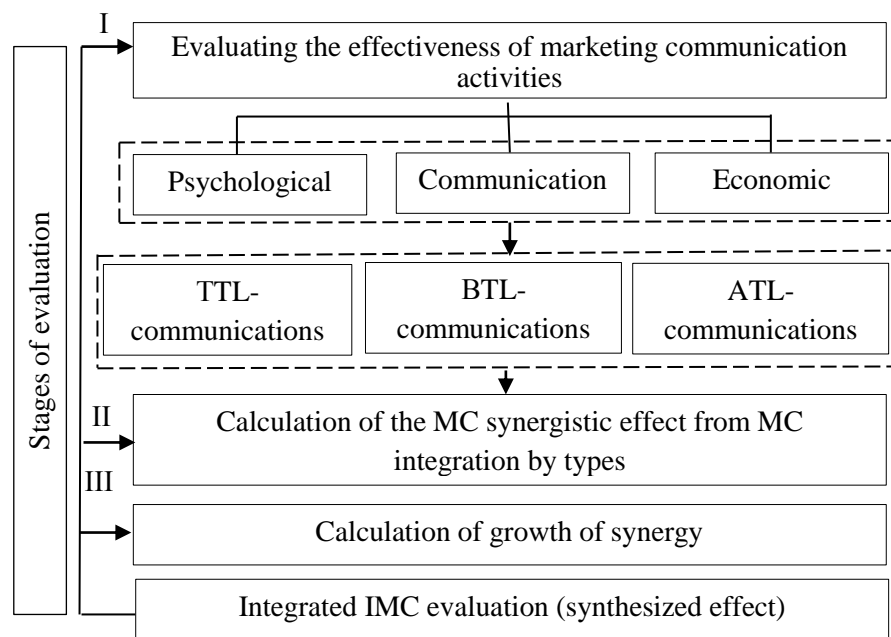


Figure 2. Hierarchical model of IMC integral evaluation by stages of its formation (author`s development)

This approach to MC combination based on integration by types provide the opportunity to get MC effect in the long term, primarily due to an increase the term of TTL-communications: while BTL communications lose their ability to influence on consumers at the operational and tactical levels of management and ATL-communications – at the strategic, TTL-communications negate the economic losses from this loss and ensure efficiency.

Conclusions. Calculation of the synthesized effect from integrating MC by types performs the function of conformity assessment the actual MC efficiency to target parameters, providing objective and comprehensive research, and the diagnostic function of changes analyzed parameters. Integration of MC tools by types for industrial enterprises allows to obtain synthesized effect, providing the communication efficiency in the long term perspective and sustainable development of the enterprises in feature.

The proposed hierarchical model of integral IMC evaluation on stages of its formation implements one of major objectives of the enterprise management

function, such as the formation of the MC evaluation system, which provide effective management of the enterprise.

The model reproduces the main functions of the economic analysis in diagnostics and evaluation of the enterprises MC system in quantitative and qualitative measurement and in search of previously unused tools in practice and ways of synthesizing their features to create new toolkit that meets the requirements of external and internal enterprise`s environment.

Thus, MC tools integration of industrial enterprises by types allows to obtain synthesized effect, ensuring the effectiveness of communication in long-term perspective and sustainable enterprise`s development in feature.

The research results can be used for further scientific works and in practical activities of Ukrainian industrial enterprises.

References:

1. *Дейтон Д.* Интегрированные маркетинговые коммуникации на практике. [Электронный ресурс] – Режим доступа: <http://www.williamspublishing.com/PDF/5-8459-0831-0/part.pdf>.
2. *Карасик И.М.* Некоторые подходы к оценке эффективности интегрированных маркетинговых коммуникаций [Электронный ресурс] – Режим доступа: <http://cyberleninka.ru/article/n/nekotorye-podhody-k-otsenke-effektivnosti-integrirovannyh-marketingovyh-kommunikatsiy>.
3. *Окландер М.А., Литовченко І.Л., Ботушан М.І.* Маркетингові комунікації промислових підприємств в умовах інформаційної економіки: Монографія. – К.: – Знання. – 2011. – с. 85.
4. *Пілько А.Д.* Сучасні тенденції розвитку моделей маркетингових комунікацій / А.Д. Пілько, О.М. Лукан [Електронний ресурс] – Режим доступа: <http://www.pu.if.ua/depart/Finances/resource/file/%D0%97%D0%B1%D1%96%D1%80%D0%BD%D0%B8%D0%BA/2011-2/%D0%9F%D1%96%D0%BB%D1%8C%D0%BA%D0%BE,%D0%9B%D1%83%D0%BA%D0%B0%D0%BD.pdf>
5. *Тейлор Д.* Волшебство по расчету. Алгебра рекламы / Джим Тейлор, Стив Хэтч; пер. с англ. Ю.Е. Корнилович. – М.: Манн, Иванов и Фербер, 2008. – С. 42.

6. *Belch George E.* Evaluating The Effectiveness of Elements of Integrated Marketing Communications: A Review of Research / George E. Belch, Michael A. Belch // Centre of Integrated Marketing Communications. San Diego State University College of Business [Electronic resource] – Access mode: http://www-rohan.sdsu.edu/~imc/articles-abstracts/ae_effect-imc.htm
7. *Jenkinson A.* Planning and evaluating communications in an integrated organization / Angus Jenkinson // Journal of Targeting, Measurement and Analysis for Marketing, 2006. – № 15, pp. 47–64.
8. *Jerman D.* Model of Marketing Communications Effectiveness in the Business-to-Business organisations markets / Damjana Jerman, Bruno Zavrsnik // Economic Research. Vol. 25, 2012, pp. 364-388.
9. *Katrandjiev H.I.* Some Aspects of Measuring Integrated Marketing Communications / Hristo Ivanov Katrandjiev // Fucta Universitatis. Series: Economics and Organization Vol. 1, № 8, 2000, pp. 87-93
10. *Saeed R.* Integrated Marketing Communication: A Review Paper / Rashid Saeed // Interdisciplinary journal of contemporary research in business. Vol. 5, 2013. – № 5. – pp. 124-133.
11. *Sinickas A.* Forecasting and Evaluation the Impact of Marketing Communications / Angela Sinickas // Communication World, 2005, p. 14.
12. *Tsuen-Ho Hsu.* An Evaluation Model for Selecting Integrated Marketing Communication Strategies for Customer Relationship Management / Tsuen-Ho Hsu. Yen-Ting Helena Chiu, Jia-Wei Tang // Marketing Intelligent Systems Using Soft Computing. Studies in Fuzziness and Soft Computing Volume 258, 2010, pp 227-254

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